

Climatological Data for September, 1910.
DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The weather during the month was unusually warm and moist, and favorable for fall-sown grain and winter pasturage. Harvesting of grain and fruit was earlier than usual, as a rule, owing to the early start last spring, and the rapid growth attained during an unusually warm summer. This applies more generally to irrigated regions; but in the dry-farming sections successful crops were obtained only where the most approved culture methods were followed. In the more elevated portions of the district leaves turned to yellow and red during the second decade, and were falling fast at the end of the month; but on the lower levels trees remained green until the end of the month.

TEMPERATURE.

The mean temperature for September was 61.4° , being about 2.5° above normal. In the Utah area it was the highest in 10 years, but in the Nevada area the temperature averaged only 1.0° above normal. The mean temperature ranged from 49.8° at Christmas Lake, in southeastern Oregon, to 80.4° at Jean, in southern Nevada. The highest mean temperatures occurred in the valleys of Utah and in the southern and western portions of Nevada; and the lowest means in the more elevated portions of Utah, and in the Oregon area. The greatest plus departures occurred in the Sevier watershed of Utah, and the greatest minus departures in central Nevada.

The month began warm in all portions of the district, but grew gradually colder until the 5th when low temperatures occurred everywhere, and many stations in the Utah, Nevada, and Oregon areas reported their lowest for the month on this date. After the 5th the weather grew gradually warmer, and the 8th, 9th, and 10th were, as a rule, the warmest days of the month. The temperature for the remainder of the month was quite equable, but grew cooler until the 26th and 27th, on which dates the lowest temperatures for the month were registered at some stations.

The highest temperature for the district was 106° on the 9th at Jean, Nev.; the next highest was 99° at McAfees Ranch on the 4th and subsequent dates. Other high temperatures were 97° on the 8th at Corinne, 96° on the 9th at Provo, and 95° on the 10th at Lucin and Mount Nebo, all in Utah.

Most of the stations in the district reported minimum temperatures below freezing. The lowest temperature for the month was 12° on the 26th at Woodruff, Utah, and the next lowest, 13° on the same date at Cokeville, Wyo.

PRECIPITATION.

The precipitation for the district, as a whole, averaged 1.02 inch, which is 0.42 inch above normal. Good amounts fell everywhere, and in Nevada and Utah many stations reported double their normal amounts. The heaviest amounts fell in the southern portion of the Utah and Nevada areas, where the greatest excesses also occurred. A very few places in northwestern Utah, and northeastern Nevada reported amounts less than normal.

The greatest monthly amount was 2.99 inches at Scipio, and the next greatest was 2.91 inches at Moroni, both in Utah. The largest 24-hour amount, 1.14 inch, was reported from Palmetto, Nev.

A few showers occurred from the 2d to the 4th at stations in the Wyoming, Idaho, Utah, and Nevada areas; but practically all the precipitation occurred from the 13th to the 20th. No snow was measured, but during the last few days of the rain period just mentioned, a covering of snow extended half way down the mountain sides in many parts of Utah.

MISCELLANEOUS.

Sunshine during the month was reported as abundant. At Salt Lake City, Utah, 72 per cent of the possible amount was recorded.

There were on the average, 4 rainy, 18 clear, 6 partly cloudy, and 6 cloudy days.

The highest wind reported was 48 miles an hour from the southwest on the 12th at Modena, Utah.

NOTE.

The only project in Utah undertaken by the Reclamation Service is at Strawberry Valley.

This project, as a whole, is now $42\frac{1}{2}$ per cent completed, and the tunnel 31 per cent. The driving of the tunnel has been continued with 3 shifts, and 439 lineal feet were excavated during the month. The heading is perfectly dry at the face, the material being a hard, blue limestone. A crushing and mixing plant has been completed and the work of placing concrete in the tunnel commenced. The engineering party in Strawberry Valley has completed the investigations at the Strawberry Dam and Indian Creek Dam sites and has completed the work of taking additional topographic observations on the reservoir site.

During the month approximately 3 inches of rain fell, which improved conditions to the extent of allowing plowing to be done without first irrigating the land. The fruit crop on the project is good and the price of all farm produce will be somewhat higher than it was last year.

TABLE 1.—Climatological data for September, 1910. District No. 10, Great Basin.

TABLE 1.—Climatological data for September, 1910. District No. 10—Continued.

| Stations. | Counties. | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. | | | | | Precipitation, in inches. | | | | | Sky. | Prevailing wind direction. | Observers. | | |
|------------------------|-----------------|------------------|------------------------|-------------------------------------|----------------------------|----------|-------|---------|---------------------------|-----------------------|--------|----------------------------|-----------------------|--------------------------|---|-----------------------|-------------------------------|------------------------|
| | | | | Mean. | Departure from the normal. | Highest. | Date. | Lowest. | Date. | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmelted. | Number of rainy days, 0.1 inch or more. | Number of clear days. | Number of partly cloudy days. | Number of cloudy days. |
| <i>Nevada—Cont'd.</i> | | | | | | | | | | | | | | | | | | |
| Columbia..... | Esmeralda..... | 5,750 | 3 | 65.8 | ..... | 92 | 10 | 45 | 21† | 41 | 1.07 | ..... | 0.92 | 0.0 | 3 | 22 | 5 | 3 se. |
| Dutton..... | Elko..... | 5,100 | 2 | 54.8 | ..... | 85 | 9 | 20 | 5 | 63 | 0.28 | ..... | 0.18 | 0.0 | 5 | 20 | 6 | 2 sw. |
| Elko..... | do..... | 5,342 | 39 | 55.9 | + 0.9 | 90 | 9 | 23 | 11 | 62 | 0.21 | — | 0.02 | 0.08 | 0.0 | 3 | 18 | 7 n. |
| Ely..... | White Pine..... | 6,421 | 19 | 54.9 | + 3.3 | 80 | 19 | 29 | 10 | 45 | 0.83 | + 0.25 | 0.56 | 0.0 | 3 | 21 | 7 | 2 sw. |
| Eureka..... | Eureka..... | 6,500 | 7 | 61.3 | + 1.4 | 89 | 9 | 35 | 5 | 46 | 1.15 | + 0.54 | 0.42 | 0.0 | 4 | 19 | 4 | 7 s. |
| Fallon..... | Churchill..... | 3,965 | 5 | 60.6 | + 0.3 | 90 | 6† | 32 | 13 | 40 | 0.45 | + 0.25 | 0.28 | 0.0 | 4 | 23 | 3 | 5 w. |
| Fernley..... | Lyon..... | 4,200 | 2 | 64.8* | + 1.8 | 88 | 2 | 36 | 13 | 44 | 0.30 | + 0.04 | 0.21 | 0.0 | 2 | 19 | 5 | 6 w. |
| Gardnerville..... | Douglas..... | 4,830 | 10 | 57.6 | + 3.7 | 88 | 4† | 32 | 17 | 53 | 0.61 | + 0.38 | 0.80 | 0.0 | 2 | 20 | 6 | 4 e. |
| Geyser..... | Lincoln..... | 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Glenbrook..... | Douglas..... | — | 1 | 64.4 | — | 81 | 3 | 30 | 28 | 36 | 0.55 | — | 0.30 | 0.0 | 2 | 19 | 6 | 5 sw. |
| Golconda..... | Humboldt..... | 4,697 | 31 | 60.7 | + 0.9 | 90 | 5 | 34 | 28 | 50 | 0.75 | + 0.45 | 0.50 | 0.0 | 2 | 28 | 0 | 2 — |
| Halleck..... | Elko..... | 5,631 | 17 | 57.4 | + 1.4 | 85 | 8 | 25 | 26† | 58 | 0.67 | + 0.32 | 0.35 | 0.0 | 3 | 24 | 1 | 5 — |
| Jean..... | Clark..... | 2,074 | 2 | 80.4 | — | 106 | 9 | 60 | 36 | 31 | 0.40 | — | 0.40 | 0.0 | 1 | 26 | 0 | 4 sw. |
| Leetville..... | Churchill..... | 4,020 | 3 | 63.8 | — | 92 | 10 | 34 | 13 | 50 | 0.47 | — | 0.36 | 0.0 | 3 | 23 | 6 | 1 — |
| Lewers Ranch..... | Washoe..... | 5,500 | 22 | 51.8 | + 0.5 | 87 | 9 | 32 | 13 | 43 | 0.55 | — 0.24 | 0.55 | 0.0 | 1 | 21 | 7 | 3 — |
| Lovelock..... | Humboldt..... | 3,977 | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| McAfee's Ranch..... | Esmeralda..... | 4,835 | 6 | 73.8 | — | 99 | 4† | 44 | 1 | 50 | 1.04 | — | 1.04 | 0.0 | 1 | 14 | 4 | 12 n. |
| Millett..... | Nye..... | — | — | 59.7 | — | 90 | 8 | 33 | 5† | 57 | 1.82 | — | 0.96 | 0.0 | 3 | 21 | 3 | 6 s. |
| Mina..... | Esmeralda..... | 4,600 | 3 | 55.7 | — | 92 | 6† | 40 | 19† | 48 | 0.00 | — | 0.00 | 0.0 | 0 | 18 | 6 | 6 w. |
| Palmetto..... | do..... | 6,780 | 20 | 62.2 | + 4.0 | 89 | 10 | 35 | 4 | 51 | 1.84 | + 1.37 | 1.14 | 0.0 | 2 | 22 | 4 | 4 nw. |
| Potts..... | Nye..... | 6,990 | 17 | 54.4 | - 1.3 | 83 | 3 | 23 | 5 | 55 | 1.26 | + 0.95 | 1.10 | 0.0 | 2 | 15 | 3 | 12 s. |
| Quinn River Ranch..... | Humboldt..... | 4,850 | 8 | 58.3* | — | 85 | 6† | 27 | 11 | 55 | 0.54 | — | 0.45 | 0.0 | 2 | — | — | w. |
| Reno..... | Washeoe..... | 4,532 | 39 | 61.5 | + 1.8 | 88 | 9 | 35 | 13 | 43 | 0.28 | + 0.01 | 0.25 | 0.0 | 3 | 25 | 3 | 2 w. |
| Soda Lake..... | Churchill..... | 4,534 | 3 | 63.0 | — | 88 | 10 | 36 | 13 | 43 | 0.38 | — | 0.25 | 0.0 | 3 | 19 | 0 | 2 nw. |
| Tecoma..... | Elko..... | 4,812 | 32 | 57.2 | + 3.2 | 92 | 9 | 33 | 26 | 53 | 0.30 | - 0.08 | 0.26 | 0.0 | 2 | 15 | 9 | 6 sc. |
| Tonopah..... | Nye..... | 6,090 | 3 | 65.2 | — | 88 | 10 | 49 | 13 | 28 | 0.94 | — | 0.87 | 0.0 | 2 | 23 | 5 | 2 se. |
| Wabuska..... | Lyon..... | 4,347 | 7 | 58.4 | — | 88 | 26 | 32 | 29 | 52 | — | — | 0.0 | — | 13 | 0 | 17 | w. |
| Wells..... | Elko..... | 5,631 | 38 | 63.1 | + 5.0 | 82 | 19 | 30 | 30 | 42 | 2.60 | + 2.46 | 1.00 | 0.0 | 2 | 18 | 2 | 10 s. |
| Winnevucca..... | Humboldt..... | 4,432 | 31 | 59.8 | + 0.7 | 88 | 9 | 34 | 9 | 54 | 0.71 | + 0.37 | 0.42 | 0.0 | 3 | 20 | 6 | 4 ne. |

*, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

* Estimated by observer.

||| Precipitation for the 24 hours ending on the morning when it is measured.

T Precipitation is less than 0.01 inch rain or melted snow.

U. S. Weather Bureau.

Southern Pacific Co.

A. J. Akin.

Miss Mamie Potts.

F. M. Payne.

U. S. Weather Bureau.

Southern Pacific Co.

U. S. Weather Bureau.

Vic Bernard.

Southern Pacific Co.

U. S. Weather Bureau.

J. S. Case.

C. H. Rodenkirch.

Fred J. Jones.

Do.

Salt Lake Route.

U. S. Reclamation Service.

Ross Lewers.

J. S. Case.

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J. S. Case.

TABLE 2.—*Daily precipitation for September, 1910. District No. 10, Great Basin.*

TABLE 2.—*Daily precipitation for September, 1910. District No. 10—Continued.*

TABLE 3.—*Maximum and minimum temperatures at selected stations, September, 1910. District No. 10, Great Basin.*

Nevada.

| Date. | Burns, Oreg. | | Elko. | | Ely. | | Eureka. | | Fallon. | | Jean. | | Lovelock. | | Millet. | | Mina. | | Quinn River Ranch. | | Reno. | | Teoma. | | Tonopah. | | Winnemucca. | |
|-------|--------------|------|-------|------|------|------|---------|------|---------|------|-------|-------|-----------|-------|---------|------|-------|------|--------------------|-------|-------|------|--------|------|----------|------|-------------|------|
| | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | |
| 1... | 87 | 35 | 83 | 29 | 62 | 40 | 85 | 46 | 80 | 42 | 99 | 79 | ..... | ..... | 87 | 39 | 90 | 48 | ..... | ..... | 85 | 46 | 86 | 38 | 82 | 61 | 81 | 44 |
| 2... | 80 | 36 | 80 | 21 | 66 | 37 | 77 | 40 | 85 | 40 | 99 | 78 | ..... | ..... | 77 | 36 | 82 | 47 | ..... | ..... | 89 | 45 | 78 | 36 | 73 | 54 | 81 | 47 |
| 3... | 81 | 30 | 79 | 31 | 63 | 39 | 67 | 45 | 80 | 53 | 92 | 72 | ..... | ..... | 73 | 43 | 84 | 56 | ..... | ..... | 82 | 50 | 76 | 34 | 67 | 52 | 80 | 55 |
| 4... | 73 | 28 | 79 | 33 | 59 | 42 | 75 | 44 | 85 | 49 | 94 | 70 | ..... | ..... | 82 | 35 | 80 | 60 | ..... | ..... | 83 | 47 | 78 | 36 | 76 | 54 | 77 | 46 |
| 5... | 82 | 35 | 78 | 27 | 31 | 41 | 81 | 35 | 86 | 37 | 97 | 72 | ..... | ..... | 86 | 33 | 88 | 56 | ..... | ..... | 87 | 44 | 80 | 28 | 80 | 54 | 84 | 35 |
| 6... | 81 | 36 | 80 | 31 | 57 | 33 | 83 | 49 | 90 | 45 | 98 | 73 | ..... | ..... | 87 | 42 | 92 | 54 | 85 | 37 | 80 | 50 | 69 | 34 | 83 | 59 | 84 | 47 |
| 7... | 80 | 32 | 83 | 33 | 60 | 32 | 84 | 44 | 89 | 46 | 99 | 74 | ..... | ..... | 87 | 35 | 88 | 64 | 83 | 35 | 80 | 53 | 74 | 26 | 81 | 56 | 84 | 43 |
| 8... | 76 | 37 | 88 | 34 | 65 | 35 | 85 | 49 | 87 | 47 | 98 | 75 | ..... | ..... | 90 | 33 | 88 | 58 | 84 | 33 | 85 | 44 | 78 | 36 | 83 | 55 | 85 | 39 |
| 9... | 78 | 40 | 90 | 32 | 67 | 36 | 89 | 49 | 90 | 42 | 106 | 77 | ..... | ..... | 89 | 34 | 90 | 43 | 88 | 29 | 83 | 45 | 92 | 42 | 87 | 60 | 88 | 34 |
| 10... | 82 | 30 | 86 | 28 | 60 | 29 | 86 | 49 | 90 | 41 | 103 | 72 | ..... | ..... | 79 | 41 | 92 | 50 | 80 | 43 | 83 | 47 | 86 | 35 | 88 | 63 | 83 | 42 |
| 11... | 79 | 32 | 82 | 20 | 62 | 34 | 76 | 41 | 79 | 41 | 99 | 78 | ..... | ..... | 76 | 40 | 80 | 48 | 73 | 27 | 72 | 49 | 76 | 34 | 78 | 59 | 86 | 43 |
| 12... | 81 | 37 | 80 | 35 | 67 | 36 | 72 | 49 | 78 | 40 | 95 | 68 | ..... | ..... | 77 | 51 | 86 | 44 | 83 | 31 | 70 | 40 | 72 | 36 | 70 | 55 | 79 | 39 |
| 13... | 75 | 32 | 81 | 23 | 60 | 34 | 71 | 50 | 76 | 32 | 91 | 72 | ..... | ..... | 72 | 55 | 84 | 49 | 77 | 31 | 75 | 35 | 76 | 34 | 70 | 49 | 78 | 37 |
| 14... | 72 | 45 | 76 | 34 | 72 | 53 | 63 | 52 | 65 | 51 | 83 | 72 | ..... | ..... | 70 | 51 | 74 | 44 | ..... | ..... | 81 | 46 | 74 | 37 | 66 | 53 | 58 | 50 |
| 15... | 74 | 38 | 71 | 30 | 66 | 47 | 64 | 47 | 99 | 53 | 92 | 74 | ..... | ..... | 70 | 50 | 73 | 52 | 69 | 30 | 69 | 54 | 84 | 40 | 69 | 52 | 64 | 54 |
| 16... | 76 | 35 | 70 | 36 | 75 | 51 | 76 | 52 | 80 | 49 | 99 | 71 | ..... | ..... | 76 | 54 | 84 | 56 | 73 | 47 | 70 | 49 | 86 | 41 | 75 | 55 | 73 | 43 |
| 17... | 75 | 33 | 78 | 43 | 77 | 50 | 79 | 48 | 78 | 40 | 97 | ..... | ..... | 79 | 41 | 78 | 48 | 71 | 33 | 75 | 41 | 82 | 38 | 77 | 53 | 75 | 38 | |
| 18... | 80 | 42 | 80 | 40 | 78 | 49 | 79 | 57 | 69 | 39 | ..... | ..... | 70 | 38 | 80 | 42 | 76 | 40 | 71 | 43 | 86 | 42 | 76 | 55 | 74 | 48 | | |
| 19... | 82 | 40 | 84 | 39 | 80 | 51 | 79 | 61 | 82 | 36 | 95 | 70 | ..... | ..... | 78 | 43 | 80 | 40 | 74 | 48 | 71 | 39 | 84 | 42 | 74 | 54 | 82 | 41 |
| 20... | 72 | 45 | 80 | 36 | 79 | 44 | 77 | 51 | 77 | 39 | ..... | ..... | 77 | 40 | 78 | 44 | 73 | 33 | 74 | 41 | 82 | 41 | 75 | 51 | 74 | 39 | | |
| 21... | 72 | 36 | 78 | 38 | 79 | 39 | 71 | 38 | 76 | 40 | 90 | 72 | ..... | ..... | 75 | 27 | 78 | 40 | 78 | 36 | 76 | 41 | 76 | 23 | 70 | 50 | 72 | 39 |
| 22... | 76 | 38 | 80 | 31 | 75 | 34 | 71 | 38 | 76 | 48 | 87 | 62 | ..... | ..... | 74 | 37 | 80 | 48 | 83 | 37 | 75 | 45 | 78 | 40 | 70 | 50 | 72 | 44 |
| 23... | 82 | 37 | 76 | 34 | 79 | 43 | 76 | 39 | 81 | 41 | 85 | 63 | ..... | ..... | 79 | 37 | 76 | 40 | 80 | 45 | 81 | 44 | 78 | 35 | 75 | 51 | 79 | 40 |
| 24... | 83 | 34 | 74 | 33 | 78 | 43 | 79 | 43 | 85 | 45 | 80 | 65 | ..... | ..... | 82 | 37 | 80 | 52 | 83 | 31 | 82 | 49 | 74 | 38 | 76 | 59 | 83 | 39 |
| 25... | 76 | 36 | 72 | 35 | 74 | 36 | 74 | 43 | 80 | 45 | 78 | 61 | ..... | ..... | 78 | 47 | 82 | 48 | 85 | 30 | 78 | 47 | 78 | 35 | 73 | 53 | 76 | 41 |
| 26... | 78 | 32 | 70 | 31 | 77 | 37 | 76 | 38 | 81 | 39 | 80 | 63 | ..... | ..... | 80 | 35 | 78 | 40 | 84 | 45 | 81 | 45 | 76 | 23 | 75 | 53 | 80 | 36 |
| 27... | 75 | 39 | 76 | 34 | 75 | 40 | 78 | 43 | 86 | 40 | 81 | 65 | ..... | ..... | 80 | 33 | 82 | 46 | 81 | 34 | 81 | 46 | 76 | 27 | 76 | 55 | 84 | 37 |
| 28... | 77 | 32 | 72 | 38 | 74 | 38 | 78 | 50 | 80 | 41 | 80 | 63 | ..... | ..... | 78 | 37 | 80 | 44 | 84 | 37 | 75 | 46 | 78 | 28 | 75 | 55 | 79 | 42 |
| 29... | 80 | 35 | 76 | 31 | 74 | 38 | 78 | 40 | 80 | 40 | 78 | 63 | ..... | ..... | 79 | 38 | 86 | 52 | 83 | 42 | 81 | 42 | 82 | 32 | 74 | 52 | 80 | 36 |
| 30... | 82 | 37 | 79 | 34 | 79 | 34 | 78 | 42 | 85 | 39 | 77 | 60 | ..... | ..... | 79 | 33 | 84 | 58 | 84 | 31 | 83 | 43 | 76 | 28 | 76 | 57 | 84 | 37 |
| 31... | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mins | 78.4 | 35.4 | 78.7 | 33.1 | 70.0 | 39.8 | 77.1 | 45.5 | 81.1 | 43.0 | 91.1b | 69.8c | | | 79.2 | 40.2 | 82.5 | 48.9 | 79.4* | 37.2* | 77.8 | 45.2 | 79.0 | 35.3 | 75.7 | 54.6 | 77.9 | 41.8 |